

Abstract

A syringe comprises a barrel containing an internal cylindrical body containing a liquid and communicating with a delivery needle. The needle is covered before use by a removable sheath, and after the sheath is removed, the needle is concealed by a displaceable sleeve. In use the sleeve is pressed against the skin by applying pressure while holding the barrel. The sleeve is thereby retracted into the barrel allowing the needle to penetrate the skin. The movement of the sleeve also activates a gas generator which expels the liquid from the needle. When delivery is complete and the syringe is taken from the skin, a coil spring moves the sleeve back to the starting position again concealing the needle. The coil spring is torsionally biased before use and causes a rotational movement of the sleeve relative to the barrel when the sleeve moves into and out of the barrel. This rotational movement engages a locking mechanism which prevents further movement of the sleeve and thereby permanently conceals the needle.